Alcohol Use Consequences

Indicator RECOMMENDED	Chronic Liver Disease Death Rate
Justification	Long term, heavy alcohol consumption is the leading cause of chronic liver disease, in particular cirrhosis, one of the 12 leading causes of death. Approximately 15,000 people in the U.S. die from cirrhosis each year.
Definition	Number of deaths from chronic liver disease per 1,000 population
Numerator	Annual number of deaths with ICD-9 codes 571.0-571.9 or ICD-10 codes K70 and K73-K74 as underlying cause of death
Denominator	Total resident population for same calendar year
Data Sources	Death certificate data from the National Center for Health Statistics National Vital Statistics System as reported in the Mortality Detail Files (numerator) and population estimates from the U.S. Bureau of the Census (denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	Age by Gender by Race/Ethnicity
Strengths	Readily available for many years in all states. The measure has been used consistently as an indicator of heavy chronic drinking for many years.
Limitations	This indicator is only based on deaths; cases of cirrhosis morbidity are not reflected in this indicator. Alcohol-related cirrhosis may have a long latency; there may be a lag of several years between changes in behavior and population mortality. The stability of this indicator is directly related to the size of the population in which these deaths occur. Therefore, this indicator may be unstable for less populated states and counties that have low numbers of annual deaths, especially when used for demographic subgroups. There also is variability in the procedures used within and across each state to determine cause of death.

Indicator ***Recommended with Reservations***	**Suicide Death Rate**
Justification	The association between alcohol use and suicide has been well documented. Suicidal individuals have high rates of alcohol use and abuse and alcohol abusers have high rates of suicidal behavior. It is estimated that 20 percent of suicides are attributable to alcohol.
Definition	Number of deaths from suicide per 1,000 population. Suicide includes all means of self-inflicted injuries that result in death.
Numerator	Annual number of suicide deaths with ICD-9 codes E950-959 or ICD-10 codes X60-X84 and Y87.0 as underlying cause of death
Denominator	Total resident population for same calendar year
Data Sources	Death certificate data from the National Center for Health Statistics Mortality Detail Files (numerator) and population estimates from the U.S. Bureau of the Census (denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	Age by Gender by Race/Ethnicity
Strengths	Readily available for many years in all states
Limitations	This indicator does not involve a direct assessment of alcohol involvement, but rather is justified on the assumption that 20 percent of all suicides are attributable to alcohol. This attributable fraction (20%) could vary substantially across geographic areas and subgroups. The stability of this indicator is directly related to the size of the population in which these deaths occur. Therefore, this indicator may be unstable for less populated states and counties that have low numbers of annual suicides, especially when used for demographic subgroups.

Indicator ***Recommended with Reservations***	**Homicide Death Rate**
Justification	It is estimated that approximately 30 percent of homicides are attributable to alcohol. In 1999, there were 17,000 homicides in the U.S.
Definition	Number of deaths from homicide per 1,000 population. Homicide includes injuries inflicted by others that result in death.
Numerator	Annual number of homicides with ICD codes E960-969 or ICD-10 codes X85-Y09 and Y87.1 as underlying cause of death
Denominator	Total resident population for same calendar year
Data Sources	Death certificate data from the National Center for Health Statistics Mortality Detail Files (numerator) and population estimates from the U.S. Bureau of the Census (denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	Age by Gender by Race/Ethnicity
Strengths	Readily available for many years in all states
Limitations	This indicator does not involve a direct assessment of alcohol involvement, but rather is justified on the assumption that 30 percent of all homicides are attributable to alcohol. This attributable fraction (30%) could vary substantially across geographic areas and subgroups. The stability of this indicator is directly related to the size of the population in which these deaths occur. Therefore, this indicator may be unstable for less populated states and counties that have low numbers of annual homicides, especially when used for demographic subgroups.

Indicator **RECOMMENDED**	**Percent of Fatal Motor Vehicle Crashes That are Alcohol Related**
Justification	Approximately 2.2 million crashes in the U.S. involved alcohol in 1999. Approximately 41 percent of traffic fatalities are the result of drinking and driving. Almost 17,000 people die from alcohol-related crashes each year. Alcohol-related traffic crashes remain the single greatest cause of death among youth and young adults.
Definition	Percent of fatal motor vehicle crashes (i.e., in which at least one person died) for which at least one driver, pedestrian, or cyclist had been drinking (Blood Alcohol Concentration >0.00)
Numerator	Annual number of fatal crashes involving alcohol
Denominator	Annual number of fatal crashes
Data Sources	Crash data from the Fatality Analysis Reporting System (FARS), National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation, (numerator and denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	NA
Strengths	Data on fatal traffic crashes have been systematically collected by NHTSA for many years in every state (though states vary in the number of years in which they have participated in FARS).
Limitations	While considerable effort has been made to obtain the BAC values for all drivers involved in fatal crashes, these data are not complete. Therefore, NHTSA has estimated driver BAC for cases missing data. The stability of this indicator is directly related to the size of the population in which these fatal crashes occur. Therefore, this indicator may be unstable for less populated states and counties that have low numbers of annual fatal crashes.

Indicator RECOMMENDED	Alcohol-Related Vehicle Death Rate
Justification	Approximately 2.2 million crashes in the U.S. involved alcohol in 1999. Approximately 41 percent of traffic fatalities are the result of drinking and driving. Almost 17,000 people die from alcohol-related crashes each year. Alcohol-related traffic crashes remain the single greatest cause of death among youth and young adults.
Definition	Number of vehicle deaths in which at least one driver, pedestrian, or cyclist had been drinking (Blood Alcohol Concentration >0.00) per 1000 population
Numerator	Annual number alcohol-related vehicle deaths
Denominator	Total resident population for same calendar year
Data Sources	Number of alcohol-related vehicle deaths from the Fatal Accident Reporting System (FARS), National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation, (numerator). Population estimates from the U.S. Bureau of the Census (denominator).
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	Age by Gender (of persons killed)
Strengths	Data on fatal traffic crashes have been systematically collected by NHTSA for many years in every state (though states vary in the number of years in which they have participated in FARS).
Limitations	While considerable effort has been made to obtain the BAC values for all drivers involved in fatal crashes, these data are not complete. Therefore, NHTSA has estimated driver BAC for cases missing data. The stability of this indicator is directly related to the size of the population in which these deaths occur. Therefore, this indicator may be unstable for less populated states and counties that have low numbers of annual vehicular deaths, especially when used for demographic subgroups.

Indicator **RECOMMENDED**	**Percent of Alcohol-Involved Drivers Among All Drivers in Fatal Crashes**
Justification	Approximately 2.2 million crashes in the U.S. involved alcohol in 1999. Approximately 41 percent of traffic fatalities are the result of drinking and driving. Almost 17,000 people die from alcohol-related crashes each year. Alcohol-related traffic crashes remain the single greatest cause of death among youth and young adults.
Definition	Percent of drivers involved in fatal crashes (i.e., in which at least one person died) who were found to have Blood Alcohol Concentrations >0.00.
Numerator	Annual number of alcohol-involved drivers in crashes in which at least one person died
Denominator	Annual number of drivers in crashes in which at least one person died
Data Sources	Driver data from the Fatality Analysis Reporting System (FARS), National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation, (numerator and denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	Age by Gender (of driver)
Strengths	Data on fatal traffic crashes have been systematically collected by NHTSA for many years in every state (though states vary in the number of years in which they have participated in FARS).
Limitations	While considerable effort has been made to obtain the BAC values for all drivers involved in fatal crashes, these data are not complete. Therefore, NHTSA has estimated driver BAC for cases missing data. The stability of this indicator is directly related to the size of the population in which these deaths occur. Therefore, this indicator may be unstable for less populated states and counties that have low numbers of fatal crashes, especially when used for demographic subgroups.

Indicator ***Recommended with Reservations***	**Violent Crime Rate**
Justification	Violence is associated with alcohol, though the causal pathway is not completely understood. Drinking on the part of the victim or a perpetrator can increase the risk of assaults and assault-related injuries. Approximately 23% of sexual assaults, 30% of physical assaults, and 3% of robberies are attributable to alcohol.
Definition	Number of simple and aggravated assaults, sexual assaults, and robberies reported to the police per 1,000 population
Numerator	Annual number of simple and aggravated assaults, sexual assaults, and robberies reported to the police per 1,000 population
Denominator	Total resident population for same calendar year
Data Sources	Crimes reported to police from the Uniform Crime Reports (numerator) and population estimates from the U.S. Bureau of the Census (denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	NA
Strengths	Violent crimes reported to the police are available annually and can be disaggregated to the county and community levels.
Limitations	Reported violent crimes are an under report of the total number of actual violent crimes. No information on the perpetrator is available to determine if they have been drinking or to disaggregate these data by demographic subgroups. Estimates of the percentage of crimes attributable to alcohol are derived primarily from self-reports of incarcerated perpetrators of the crimes. The percentage actually attributable to alcohol may vary across geographic units. Although most police departments do report UCR data, there are a few jurisdictions each year for which data are not provided.

Indicator ***Recommended with Reservations***	**Alcohol Abuse or Dependence**
Justification	Abuse and dependence are clinical terms used to characterize patterns of alcohol use associated with significant social, psychological, and physical problems for the user and/or others that may be negatively impacted by the user.
Definition	Percent of persons aged 12 and older meeting DSM-IV criteria for alcohol abuse or dependence
Data Source	National Survey on Drug Use and Health (NSDUH)
Frequency	Annual
Geographic levels	National and State
Demographic Categories	Age
Strengths	NSDUH is the only national source that currently provides statewide prevalence estimates of alcohol abuse or dependence.
Limitations	Concerns have been raised about the accuracy of assessing clinical conditions through survey methodology. Responses have, however, been shown to be consistent with information obtained from peers, parents, and archival records. State-level estimates for most states are based on relatively small samples. Although augmented by model-based estimation procedures, estimates for specific age groups have relatively low precision (i.e., large confidence intervals). The estimates are provided directly by SAMHSA and raw data that could be used for alternative calculations (e.g., different age categories and/or other demographic subgroups) are not available. The estimates are subject to bias due to self-report and non-response (refusal/no answer).

Alcohol Use Consumption

Indicator RECOMMENDED	Current Use of Alcohol by Persons Aged 12 and Older
Justification	Approximately 100,000 deaths each year in the U.S. are attributed to alcohol misuse. Studies have shown that youth who begin drinking at an early age are at increased risk of problem drinking later in life. Purchase and consumption of alcohol by persons under the age of 21 is illegal.
Definition	Percent of persons aged 12 and older reporting any use of alcohol within the past 30 days
Data Source	National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (DHHS)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	Age
Strengths	NSDUH is the only national source that currently provides prevalence of use estimates for both adolescents and adults for every state.
Limitations	State-level estimates for most states are based on relatively small samples. Although augmented by model-based estimation procedures, estimates for specific age groups have relatively low precision (i.e., large confidence intervals). The estimates are provided directly by SAMHSA and raw data that could be used for alternative calculations (e.g., demographic subgroups) are not available. The estimates are subject to bias due to self-report and non-response (refusal/no answer).

Indicator **RECOMMENDED**	**Current Use of Alcohol by High School Students**
Justification	Approximately 100,000 deaths each year in the U.S. are attributed to alcohol misuse. Alcohol misuse results in injuries, violence, fetal alcohol spectrum disorder, and other negative health and safety consequences. Purchase of alcohol by persons under the age of 21 is illegal. Young people who consume alcohol are more likely than adults to drink heavily.
Definition	Percent of students in grades 9 through 12 reporting any use of alcohol within the past 30 days
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, Race/Ethnicity
Strengths	YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.
Limitations	As of 2003, weighted representative samples were available for only 32 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for some subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator RECOMMENDED	Current Use of Alcohol by Persons Aged 18 and Older
Justification	Approximately 100,000 deaths each year in the U.S. are attributed to alcohol misuse.
Definition	Percent of persons aged 18 and older reporting any use of alcohol within the past 30 days
Data Source	Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention (CDC)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	Age, Gender, and Race/Ethnicity
Strengths	BRFSS provides prevalence estimates of adult use for every state. State-level estimates are typically based on larger samples than the National Survey on Drug Use and Health and may be further broken down by age, gender, and race/ethnicity.
Limitations	BRFSS is a telephone survey subject to potential bias due to self-report, non-coverage (households without phones), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator RECOMMENDED	Current Binge Drinking by Persons 12 and Older
Justification	Binge drinking, as indicated by consumption of five drinks or more within a short time span, is strongly associated with injuries, motor vehicle crashes, violence, fetal alcohol spectrum disorder, chronic liver disease, and a number of other chronic and acute conditions. Approximately 100,000 deaths per year are attributed to alcohol use.
Definition	Percent of persons aged 12 and older reporting having five or more drinks on at least one occasion within the past 30 days
Data Source	National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (DHHS)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	Age
Strengths	This measure has been used consistently for many years, and by many different surveillance systems, as an easily obtained indicator of an alcohol use behavior that is almost certain to cause impairment. The NSDUH is the only national source that currently provides prevalence estimates for both adolescents and adults for every state.
Limitations	This measure does not capture the frequency of binge drinking or amount consumed on any one occasion. State-level estimates for most states are based on relatively small samples. Although augmented by model-based estimation procedures, estimates for specific age groups have relatively low precision (i.e., large confidence intervals). The estimates are provided directly by SAMHSA and raw data that could be used for alternative calculations (e.g., demographic subgroups) are not available. The estimates are subject to bias due to self-report and non-response (refusal/no answer).

Indicator **RECOMMENDED**	**Current Binge Drinking by Adults Aged 18 and Older**
Justification	Binge drinking, as indicated by consumption of five drinks or more within a short time span, is strongly associated with injuries, motor vehicle crashes, violence, fetal alcohol spectrum disorder, chronic liver disease, and a number of other chronic and acute conditions. Approximately 100,000 deaths per year are attributed to alcohol misuse.
Definition	Percent of persons aged 18 and older reporting having five or more drinks on at least one occasion within the past 30 days
Data Source	Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention (CDC)
Frequency	Annual
Geographic levels	National and State
Demographic Categories	Age, Gender, and Race/Ethnicity
Strengths	This measure has been used consistently for many years, and by many different surveillance systems, as an easily obtained indicator of an alcohol use behavior that is almost certain to cause impairment. The BRFSS provides prevalence estimates of adult use for every state. State-level estimates may be further broken down by age, gender, and race/ethnicity.
Limitations	This measure does not capture the frequency of binge drinking or amount consumed on any one occasion. The BRFSS is a telephone survey subject to potential bias due to self-report, non-coverage (households without phones), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator **RECOMMENDED**	**Current Binge Drinking by High School Students**
Justification	Binge drinking, as indicated by consumption of five drinks or more within a short time span, is strongly associated with injuries, motor vehicle crashes, violence, fetal alcohol spectrum disorder, chronic liver disease, and a number of other chronic and acute conditions. Approximately 100,000 deaths per year are attributed to alcohol misuse. Purchase of alcohol by persons under the age of 21 is illegal. Young people who consume alcohol are more likely than adults to binge drink.
Definition	Percent of students in grades 9 through 12 reporting having five or more drinks in a row (i.e., within a couple hours) on at least one occasion within the past 30 days
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	This measure has been used consistently for many years, and by many different surveillance systems, as an easily obtained indicator of an alcohol use behavior that is almost certain to cause impairment. YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.
Limitations	This measure does not capture the frequency of binge drinking or amount consumed on any one occasion. As of 2003, weighted representative samples were only available for 32 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator **RECOMMENDED**	**Current Heavy Use of Alcohol by Adults Aged 18 and Older**
Justification	Heavy use of alcohol pertains to a pattern of regular use at levels that exceed U.S. Dietary Guidelines and are associated with heightened levels of all-cause mortality. Heavy drinkers are at increased risk for a variety of adverse health outcomes, including alcohol abuse and dependence.
Definition	Percent of women aged 18 and older reporting an average daily alcohol consumption greater than one drink per day Percent of men aged 18 and older reporting an average daily alcohol consumption greater than two drinks per day
Data Source	Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention (CDC)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	Age, Gender, and Race/Ethnicity
Strengths	BRFSS provides prevalence estimates of adult use for every state. State-level estimates are typically based on larger samples than the National Survey on Drug Use and Health and may be further broken down by age, gender, and race/ethnicity.
Limitations	Average daily consumption does not capture variations in how the amounts of alcohol consumed are distributed over multiple days. BRFSS is a telephone survey subject to potential bias due to self-report, non-coverage (households without phones), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator **RECOMMENDED**	**Early Initiation of Alcohol Use**
Justification	Initiation of alcohol use at young ages, especially in pre-adolescence, has been linked to more intense and problematic levels of use in adolescence and adulthood. Young people who consume alcohol are more likely than adults to binge drink. Purchase of alcohol by persons under the age of 21 is illegal.
Definition	Percent of students in grades 9 through 12 who report first use of alcohol before age 13 (more than just a few sips)
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	This measure may be defined for all respondents, unlike average age of first use, which can only be defined for users. YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.
Limitations	Cut-point of 13 years may not be sensitive to changes in average age of first use across the age continuum. As of 2003, weighted representative samples were only available for 32 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator **RECOMMENDED**	**Drinking and Driving Among Adults 18 and Older**
Justification	Alcohol consumption impairs a person's ability to operate a motor vehicle in a safe manner. Approximately 2.2 million crashes in the U.S. involved alcohol in 1999. Approximately 41 percent of traffic fatalities are the result of drinking and driving. Almost 17,000 people die from alcohol-related crashes each year.
Definition	Percent of adults aged 18 and older reporting driving one or more times in the past 30 days when they "have perhaps had too much to drink"
Data Source	Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention (CDC)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	Age, Gender, and Race/Ethnicity
Strengths	The BRFSS provides prevalence estimates of adult use for every state. State-level estimates are typically based on larger samples than the National Survey on Drug Use and Health and may be further broken down by age, gender, and race/ethnicity. The item used to measure this behavior relies on a somewhat subjective assessment by the respondent of "perhaps too much to drink."
Limitations	The BRFSS is a telephone survey subject to potential bias due to self-report, non-coverage (households without phones), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator RECOMMENDED	Drinking and Driving Among High School Students
Justification	Alcohol consumption impairs a person's ability to operate a motor vehicle in a safe manner. Motor vehicle crashes are the leading cause of death for people ages 15-19. Approximately 2.2 million crashes in the U.S. involved alcohol in 1999. Approximately 41 percent of traffic fatalities are the result of drinking and driving. Almost 17,000 people die from alcohol-related crashes each year.
Definition	Percent of students in grades 9 through 12 reporting driving a car within the past 30 days one or more times when they had been drinking
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	The YRBSS is the only national survey that provides state-level estimates on the prevalence of driving after drinking among adolescents. YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.
Limitations	As of 2003, weighted representative samples were only available for 32 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator **RECOMMENDED**	**Riding in Car with Drinking Driver Among High School Students**
Justification	Alcohol consumption impairs a person's ability to operate a motor vehicle in a safe manner. Motor vehicle crashes are the leading cause of death for people ages 15-19. There are over 17,000 alcohol-related traffic deaths per year. Nationally, 30% of students report riding with a drinking driver one or more times in the past month.
Definition	Percent of students in grades 9 through 12 reporting getting in a car within the past 30 days one or more times with someone who had been drinking
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	The applicability of this measure is not limited only to students who drive. It therefore may provide a more accurate assessment of the overall prevalence of risk for injury or death due to involvement in an alcohol-related crash. YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.
Limitations	As of 2003, weighted representative samples were only available for 32 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator ***Recommended with Reservations***	**Total Sales of Ethanol per Year per Capita**
Justification	Per capita consumption of absolute alcohol has been used historically as an indicator of overall drinking within a state and has been shown to be correlated with many types of alcohol problems.
Definition	Total sales of ethanol in beer, wine, and spirits per year, estimated in gallons of ethanol, per 10,000 population age 14 and older
Data Source	Alcohol Epidemiologic Data System (AEDS)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	NA
Strengths	The indicator is consistently defined and readily available from archival data for all states and for many years.
Limitations	Findings regarding the association between per capita alcohol consumption and negative consequences have been inconsistent. Average consumption levels may not be sensitive in identifying areas with a high prevalence of heavy use where there are also high rates of abstinence. Estimates may be inflated due to consumption by non-residents (e.g., tourists and other visitors). Untaxed alcohol (e.g., products that are smuggled or homemade) are not captured in this indicator.